植 物 分 类 学 报 41 (4): 381 - 386 (2003)
Acta Phytotaxonomica Sinica

蜘蛛抱蛋属(百合科)二新种

李光照 韦毅刚

(广西壮族自治区 中国科学院 广西植物研究所 桂林 541006)

Two new species of the *Aspidistra* Ker-Gawl. (Liliaceae)

LI Guang-Zhao WEI Yi-Gang

(*Guangxi Institute of Botany, Guangxi Zhuang Autonomous Region and the Chinese Academy of Sciences*, Guilin 541006, China)

Abstract *Aspidistra papillata* G. Z. Li and *A. huanjiangensis* G. Z. Li & Y. G. Wei, two new species of Liliaceae from Guangxi, are described and illustrated. *A. papillata* is closely related to *A. tonkinensis* (Gagnep.) F. T. Wang & K. Y. Lang in having solitary flowers, campanulate perianth with the three outer lobes covering the three inner ones on both sides at base, peltate stigma with the margin 3-lobed and the top radially 3-sulcate, but different by the larger plant, thicker petiole 2.5 - 3.5 cm in diameter, elliptic or oblong-elliptic leaves, broadly campanulate perianth purplish outside, purple and 7-sulcate inside, grayish-white stigma densely papillate. *A. huanjiangensis* is similar to *A. cavicola* D. Fang & K. C. Yen in the plant smaller, and leaves smaller less than 14 cm long and 4.5 cm wide, but different by having leaves entire, stigma truncate on top, deeply trifurcate-lobed with the lobes bifurcate.

Key words *Aspidistra*, *A. papillata* G. Z. Li, *A. huanjiangensis* G. Z. Li & Y. G. Wei, new species, Guangxi, China.

摘要 报道了在广西发现的2个百合科蜘蛛抱蛋属 *Aspidistra* 新种,即乳突蜘蛛抱蛋 *A. papillata* G. Z. Li 和环江蜘蛛抱蛋 *A. huanjiangensis* G. Z. Li & Y. G. Wei。乳突蜘蛛抱蛋与大花蜘蛛抱蛋 *A. tonkinensis* (Gagner.) F. T. Wang & K. Y. Lang 近缘。它们的共同特征是:花单生;花被裂片两侧彼此覆盖;柱头盾状,边缘3裂,上表面具3条辐射状沟缝。不同点是:乳突蜘蛛抱蛋植株较大花蜘蛛抱蛋的粗大;叶柄较粗;叶片椭圆形或长椭圆形;花被阔钟状,花被裂片外面淡紫色,内面紫色并具7条沟纹;柱头表面灰白色,密布小乳状体。环江蜘蛛抱蛋与洞生蜘蛛抱蛋 *A. cavicola* D. Fang & K. C. Yen 相似。这两种的共同特征是:植株纤弱;叶片较小,长在14 cm以下,宽在4.5 cm以下。不同点是:环江蜘蛛抱蛋的叶无锯齿;柱头平截,边缘三叉状深裂,裂片条形,上表面具3条先端2叉状的沟槽。

关键词 蜘蛛抱蛋属; 乳突蜘蛛抱蛋; 环江蜘蛛抱蛋; 新种; 广西; 中国

1999年6月,本文第一作者在广西南宁市南湖公园进行蜘蛛抱蛋属 *Aspidistra* Ker-Gawl.植物调研时,发现其行政办公室附近墙边有两丛长势茂盛的蜘蛛抱蛋属植物,并找到了2朵浅紫色的花,初步认定是一新种,随即采了植物标本并挖回一株移栽到桂林植物园。次年,该植株开出了4朵花,于是再次压制了标本并解剖了花。2001年又进行了观察,发现其所有形态特征并无变化,故确定该植物为新种。

1998年本文第二作者在广西环江木伦自然保护区考察时,在一处近山谷的疏林下石

2002-09-26 收稿, 2003-03-13 收修改稿。

基金项目: 国家自然科学基金(3966006);广西自然科学基金资助匹配项目(9718007) (Supported by the National Natural Science Foundation of China (Grant No. 3966006) and the Natural Science Foundation of Guangxi (Grant No. 9718007))。

灰岩石缝中偶然发现有两丛蜘蛛抱蛋属植物小苗,并采到了1朵结构特别但不完整的小花,于是将这2株小苗引至桂林植物园种植。这些小苗也于2000年4月开出3朵小花。后来经解剖和2001年的再次观察,发现它应是蜘蛛抱蛋属的另一新种。

1 乳突蜘蛛抱蛋 新种 图1

Aspidistra papillata G. Z. Li, sp. nov. Fig. 1

Species *A. tonkinensi* (Gagnep.) F. T. Wang & K. Y. Lang affinis, sed plantis majoribus et robustis, petiolis crassis, 2.5 – 3.5 mm diam., foliorum laminis ellipticis vel oblongo-ellipticis, 18 – 25 cm longis, 6 – 8.5 cm latis, perianthio late campanulato, majore, 2.5 – 3 cm longo, tubo perianthii 1.3 – 1.7 cm longo, 2 – 2.4 cm diam., lobis perianthii extus purpurascentibus, intus purpureis, 7-sulcatis, stigmate facie supera cineraceo, dense papillato differt.

Rhizoma subteres, 1 – 1.3 cm diam., dense nodosum et squamatum, radices elongatas edens. Vaginae 3 – 4, 1.5 – 11 cm longae, basin folii amplectentes, vetustiores in fibrillas demum dissolutae. Folia solitaria, 0.5 – 2 cm inter se distantia, interdum 2 caespitosa; laminae ellipticae vel oblongo-ellipticae, 18 – 25 cm longae, 6 – 8.5 cm latae, apice acuminatae, basi late cuneatae vel subrotundatae interdum inaequilaterae, margine integrae; petioli crassi, 12 – 15 cm longi, 2.5 – 3.5 mm diam., supra canaliculati. Pedunculus crassus, 2.5 – 5.5 cm longus, 4 – 7-bracteatus, bracteis purpurascentibus, infimis anguste ovatis 1.2 – 3 cm longis, 6 – 8 mm latis, summis ovato-lanceolatis 3 – 3.5 cm longis, 2 – 2.4 cm latis, apice attenuatis. Flores solitarii, terminales. Perianthium late campanulatum, 2.5 – 3 cm longum, 6(– 7)-fidum, lobis late ovato-triangulatis, 2-seriatis, 3 exterioribus basi obtegentibus latera 3 interiorum, 1.2 – 1.5 cm longis, 1.4 – 1.6 cm latis, apice obtusis, extus purpurascentibus, purpureo-punctulatis, intus purpureis, 7-sulcatis, tubo 1.3 – 1.7 cm longo, 2 – 2.4 cm diam., extus purpureo-striato, intus purpureo. Stamina 6 (– 7), basi tubi inserta, filamentis albis, circ. 2 mm longis, antheris oblongis, flavis, circ. 4 mm longis, circ. 2 mm latis. Pistillum 1.5 cm longum, ovario dilatato purpureo, stylo circ. 5 mm longo albo, articulato, stigmate dilatato, peltato, 1.3 cm diam., stamina conspicue superante, centro convexo, facie supera cineraceo, dense papillato, radiatim 3-sulcato, sulcis apice bifurcatis, dorso purpureo, margine profunde 3-lobato, lobis revolutis apice leviter 3-lobulatis, lobulis mediis majoribus. Fructus ignoti. Fl. Apr.

China. Guangxi (广西): Nanning (南宁), Nanhu Park (南湖公园), alt. 205 m, cultivated, 1999-06-18, G. Z. Li (李光照) 16885 (holotype, here designated, IBG); Guilin (桂林), Yanshan (雁山), alt. 180 m, transplanted from Nanhu Park, Nanning, 2000-06-20, *Aspidistra* Research Group (蜘蛛抱蛋属植物项目调查组) 069.

根状茎近圆柱形,直径1 – 1.3 cm,具密节和鳞片,有多数伸长的根,叶鞘3 – 4枚,长1.5 – 11 cm,紧抱着叶的基部,枯后裂成纤维状。叶单生,彼此相距0.5 – 2 cm,罕有2枚簇生;叶片椭圆形或长椭圆形,长18 – 25 cm,宽6 – 8.5 cm,先端渐尖,基部阔楔形或近圆形,两侧不等,边缘全缘;叶柄粗壮,长12 – 15 cm,直径2.5 – 3.5 mm,上表面具槽。花总梗粗壮,长2.5 – 5.5 cm,具淡紫色苞片4 – 7枚;上部的苞片狭卵状披针形,长3 – 3.5 cm,宽2 – 2.4 cm,先端短渐尖。花单生,花被阔钟状,长2.5 – 3 cm,6(– 7)裂,裂片宽卵状三

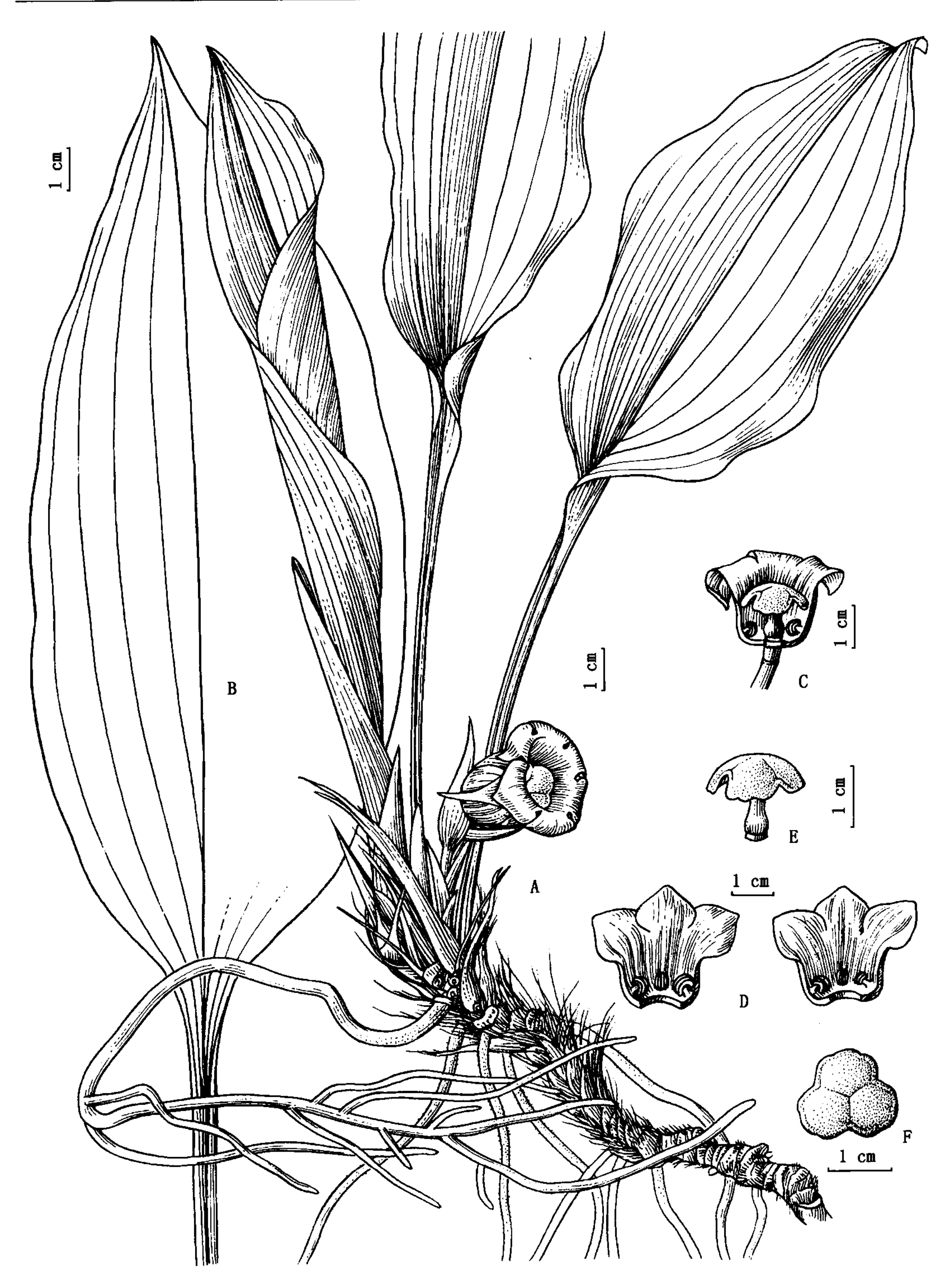


图 1 乳突蜘蛛抱蛋 A，植株；B，叶；C，花被纵切面；D，花被纵切面，除去雌蕊；E，雌蕊；F，柱头上面观。（何顺清根据蜘蛛抱蛋属植物项目调查组 069 号标本绘）。

Fig. 1. *Aspidistra papillata* G. Z. Li. A, habit; B, leaf; C, flower, with half of perianth removed; D, vertical section of perianth, with pistil removed; E, pistil; F, stigma, viewed from top. Drawn by S. Q. He from *Aspidistra* Research Group 069.

角形,二轮排列,长 1.2 - 1.5 cm,宽 1.4 - 1.6 cm,先端钝,基部两侧边缘彼此互相覆盖,外侧淡紫色,具紫色小斑点,内侧紫色,具7条沟纹;花被筒长 1.3 - 1.7 cm,直径 2 - 2.4 cm,外侧淡紫色,具紫色纵脉纹;内侧紫色;雄蕊 6 (- 7),贴生于筒的基部,花丝白色,长约 2 mm,花药长圆形,黄色,长约 4 mm,宽约 2 mm;雌蕊长 1.5 cm,子房膨大,紫色;花柱长约 5 mm,白色,具关节;柱头盾状膨大,直径 1.3 cm,位置明显高于雄蕊,上表面灰白色,密布小乳突,并具3条辐状排列且先端2分叉的沟缝,中部稍隆起,背面紫色,边缘3深裂,裂片向下反卷,先端再微3裂,中间的小裂片较大。果实未见。花期4月。

本种相似于大花蜘蛛抱蛋 *A. tonkinensis* (Gagnep.) F. T. Wang & K. Y. Lang,但植物体较大而粗壮;叶柄较粗,直径 2.5 - 3.5 mm;叶片椭圆形或长椭圆形,长 18 - 25 cm,宽 6 - 8.5 cm;花被阔钟形,较大,长 2.5 - 3 cm,筒部长 1.3 - 1.7 cm,直径 2 - 2.4 cm;花被片外侧淡紫色,内侧紫色,具7条沟纹;柱头上表面灰白色,密布小乳突状体而明显不同。

本种因引种详细地点不详,故其生态环境情况无法得知。它在形态上与产于越南(谅山地区)和我国的广西(天峨)、云南(屏边)、贵州(罗甸)的大花蜘蛛抱蛋 *A. tonkinensis* 相似,但因其植株粗壮,花的形态和颜色不同,尤其柱头上表面密布灰白色小乳突而明显区别于后者。同时,由于它的柱头呈盾状膨大,边缘3浅裂,上表面具3条先端2分叉的放射状缝线等特征,在系统位置上应归入李光照等(2000)建立的蜘蛛抱蛋属分类系统中的小花蜘蛛抱蛋系 ser. *Minutiflorae* 中。

2 环江蜘蛛抱蛋 新种 图2

Aspidistra huanjiangensis G. Z. Li & Y. G. Wei, sp. nov. Fig. 2

Affinis *A. cavicolae* D. Fang & K. C. Yen, a qua foliis integris, ovario dilatato, stigmate trinacriformi, facie supera truncato, radiatim 3-sulcato, sulcis albis apice bifurcatis, margine 3-partitis, lobis apice bifurcatis, lobulis apice rotundis differt.

Rhizoma subteres 4 - 5 mm diam., dense nodosum et squamatum. Folia solitaria, 1 - 1.5 cm inter se distantia; laminae oblongae vel ovato-oblongae, 8 - 14 cm longae, 2.5 - 4.5 cm latae, coriaceae, margine integrae, apice acuminatae, basi cuneatae, in petiolum 6 - 12 cm longum 1.5 mm crassum viridem attenuata. Pedunculus 2 - 12 mm longus, 2 mm diam., viridi-luteus, 3 - 4-bracteatus, bracteis infimis ovatis, 3 mm longis, 2.5 mm latis, summis late ovatis, 4.5 mm longis, 6 mm latis, basi perianthii adpressis. Flores solitarii, oblique ascendentes. Perianthium campanulatum, viridi-luteum vel rubellum, tubo 6.5 mm longo, 8 mm diam., intus purpureo, apice 6-fido, lobis deltoideis, 2 mm longis, 2 mm latis, erectis vel leviter reflexis, apice obtusis, margine viridi-luteis, extus puncticulatis. Stamina 6, medio tubi inserta, filamentis 0.5 mm longis, antheris oblongis, flavis, circ. 1.5 mm longis. Pistillum 4.5 mm longum, purpureum, ovario dilatato, stylo 3 mm longo, articulato, stigmate trinacriformi, facie supera truncato, radiatim 3-sulcato, sulcis albis apice bifurcatis, margine 3-partito, lobis apice bifurcatis, lobulis apice rotundis. Fructus ignoti. Fl. Apr.

China. Guangxi (广西): Guilin (桂林), Yanshan (雁山), alt. 180 m, transplanted from Huanjiang Natural Reserve (环江自然保护区), 2000-04-20, *Aspidistra* Research Group (蜘蛛抱蛋属植物项目调查组) 075 (holotype, here designated, IBG), 076.

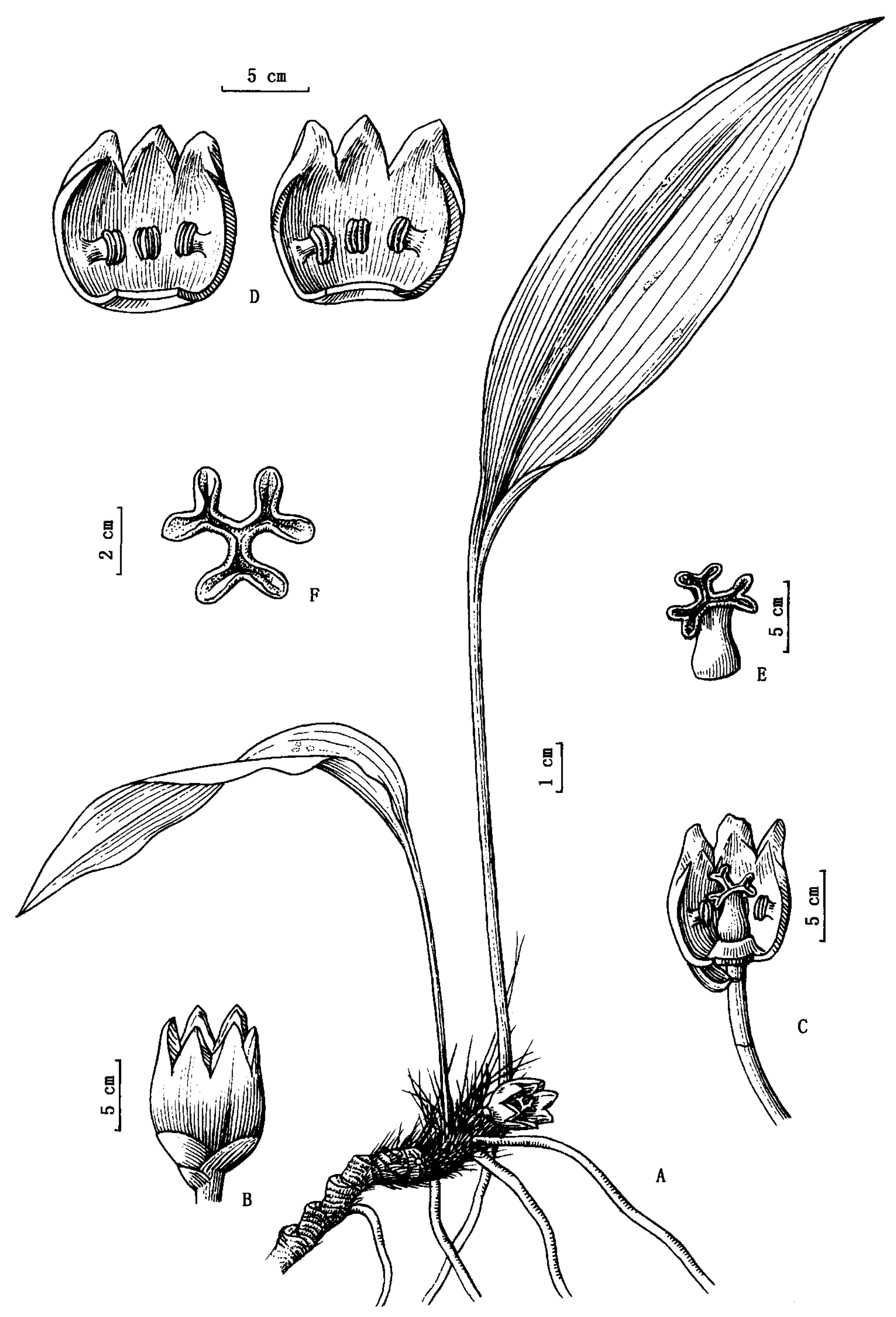


图 2 环江蜘蛛抱蛋 A，植株；B，花；C，花被纵切面；D，花被纵切面，除去雌蕊；E，雌蕊；F，柱头上面观。（何顺清根据蜘蛛抱蛋属植物项目调查组 075 号标本绘。）

Fig. 2. *Aspidistra huanjiangensis* G. Z. Li & Y. G. Wei A, habit; B, flower; C, flower, with half of perianth removed; D, vertical section of perianth, with pistil removed; E, pistil; F, stigma, viewed from top. Drawn by S. Q. He from *Aspidistra* Research Group 075.

根状茎匍匐,近圆形,直径4-5 mm,有密节和鳞片。叶单生,彼此相距1-1.5 cm,叶片长圆形或卵状长圆形,长8-14 cm,宽2.5-4.5 cm,革质,边缘全缘,先端渐尖,基部楔形,渐狭成柄;叶柄长6-12 cm,直径约1.5 mm,绿色。总花梗长2-12 mm,直径2 mm,黄绿色,具3-4枚苞片,下部的苞片卵形,长3 mm,宽2.5 mm,上部的苞片宽卵形,长4.5 mm,宽6 mm,紧贴花被。花单生,斜展;花被钟状,黄绿色至粉红色,筒部长6.5 mm,直径8 mm,内侧紫黑色,上部6裂;裂片三角形,长与宽均为2 mm,直立或微外折,先端钝,两侧绿色,外侧具小紫斑点;雄蕊6,着生于花被筒的中部,具短柄,柄长0.5 mm,花药长圆形,黄色,长约1.5 mm;雌蕊长4.5 mm,深紫色,子房膨大,花柱长3 mm,具关节,柱头三叉状,上表面平截,具三条白色、先端二分叉并相交成放射状的沟槽,边缘条状三深裂,裂片先端再条状二深裂,小裂片先端圆钝。果实未见。花期4月中旬。

本种外形似洞生蜘蛛抱蛋 *A. cavicola* D. Fang & K. C. Yen,但本种的叶全缘;子房膨大;柱头三叉状,上表面平截,具3条白色、先端二分叉并相交成放射状的沟槽,边缘条状三深裂,裂片先端再条状二深裂,末回裂片先端圆钝,可以明显区别。

环江蜘蛛抱蛋 *A. huanjiangensis* 采于广西环江的木伦自然保护区的山谷疏林下石灰岩石缝中。该保护区地处东经107°54′01″-108°05′51″、北纬25°07′01″-25°12′22″。本种是较典型的石灰岩石山植物,其形态与产于广西凤山袍里石灰岩岩洞的洞生蜘蛛抱蛋 *A. cavicola* 相似。但本种叶缘无锯齿,柱头平截、边缘三叉状深裂、条片条形、上表面具3条二叉状沟槽而与后者不同。此外,因本种柱头的上述结构也明显区别于蜘蛛抱蛋属的其他各系的柱头,因此我们根据本种建立了一个新系,即环江蜘蛛抱蛋系 ser. *Huanjiangenses* G. Z. Li(李光照,唐赛春,2002)。遗憾的是,由于种种原因,本种未能在该新系发表之前或与该新系同时发表。

参 考 文 献

Li G-Z (李光照), Lang K-Y (郎楷永), Wang R-X (王任翔), Wei Y-G (韦毅刚). 2000. On the trends of morphological differentiation and a new system of classification in Chinese *Aspidistra* Ker-Gawl. (Liliaceae). Guihaia (广西植物) 20: 201-217.

Li G-Z (李光照), Tang S-C (唐赛春). 2002. New taxa of *Aspidistra* Ker-Gawl. from Guangxi, China. Guihaia (广西植物) 22: 289-291.